

**NEVADA DEPARTMENT OF
CONSERVATION & NATURAL RESOURCES**

STATE ENVIRONMENTAL COMMISSION

HEARING ARCHIVES FOR

REGULATORY PETITIONS

COMMISSION PETITION NO. 98005

LEGISLATIVE COUNSEL BUREAU (LCB) FILE NO. R-062-98

DOCUMENTS INCLUDED IN THIS FILE:

YES SECRETARY OF STATE FILING FORM

YES DISCLOSURE STATEMENT PURSUANT TO NRS 233B

REGULATORY PETITIONS

ORIGINAL DRAFTED BY COMMISSION

ADOPTED BY COMMISSION

YES AS FILED AND CODIFIED BY LCB

Secretary of State
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Governor's Signature

State Environmental Commission

Classification [] Proposed [] Adopted By Agency [xx] Temporary [] Emergency []

Brief description of action: Petition 98005 (LCB File No. R-062-98) permanently amends NAC 445A.194 to NAC 445A.201 to revise the water quality standards for the Las Vegas Wash, Las Vegas Bay and Lake Mead. The revisions add explanations of requirements to maintain existing higher quality (RMHQ) and removes all references to "90% of the samples" and replaces the language with "95% of the samples" for RMHQs. The pH standard for Lake Mead water quality standards in NAC 445A.194 and 445A.915 were revised and a standard for escherichia coli was added. NAC 445A.196 and 445A.197, the standards for the Las Vegas Bay, were amended to add RMHQs for chlorophyll a at stations LM4 and LM5 and revised the standard for pH and nitrite. NAC 445A.198 through NAC 445A.201 were amended to add a standard for total suspended solids, revised the standard for pH in the lower reach and revised the RMHQ for total dissolved solids.

Authority citation other than 233B: NRS 445A.425 and 445A.520

Notice date: May 18, 1998; May 26, 1998; and June 3, 1998.

Hearing date: June 17, 1998

Date of Adoption of Agency: June 17, 1998

**LEGISLATIVE REVIEW OF ADOPTED REGULATIONS AS REQUIRED
BY ADMINISTRATIVE PROCEDURES ACT, NRS 233B.066
PETITION 98005 (LCB R-062-98)**

The following statement is submitted for adopted amendments to Nevada Administrative Code (NAC) 445A. This permanent regulation deals with amendments to water quality standards for the Las Vegas Wash, Las Vegas Bay and Lake Mead.

1. A description of how public comment was solicited, a summary of public response, and an explanation how other interested persons may obtain a copy of the summary.

Petition 98005 (LCB R-063-98), was noticed three (3) times: May 18, 1998, May 26 and June 3, 1998 as a permanent regulation in the Las Vegas Review Journal and the Reno Gazette-Journal newspapers. The regulation was adopted on June 17, 1998 by the Environmental Commission. Extensive workshops were held by the Division of Environmental Protection's Bureau of Water Quality Planning. Comments at the public hearing were presented by the City of Henderson (exhibit # 2). This exhibit represented the views of the Las Vegas Valley wastewater dischargers. The dischargers did not oppose any specific standard or criterion in this regulation, but they were critical of the role of "Requirements to Maintain Higher Quality Standards" and how they are applied to effluent dominated streams. The general public and the federal park service were supportive of the adopted standards. The public was also mailed the public notice through the Environmental Commission's mailing list. A copy of the written comments may be obtained by calling the Nevada State Environmental Commission (702) 687-4670 extension 3117, or writing to the Commission at 333 W. Nye Ln., Room 138, Carson City, Nevada 89706-0851.

2. The number persons who:

- | | | |
|-----|---|----|
| (a) | Attended each hearing; | 45 |
| (b) | Testified at each hearing: | 4 |
| (c) | Submitted to the agency written comments: | 1 |

3. A description of how comment was solicited from affected businesses, a summary of their response, and a explanation how other interested persons may obtain a copy of the summary.

Comments were solicited from affected businesses by the notices in the newspapers, as outlined in #1 and by direct mail to interested persons subscribing to the Commission's mailing list. See above statement for dates and locations of workshops and notices. No written comments were received regarding this petition from businesses, nor was testimony presented regarding this petition from businesses. A copy of the written comments may be obtained by calling the Nevada State Environmental Commission (702) 687-4670 or writing to the Commission at 333 W. Nye Ln., Room 138, Carson City, Nevada 89706-0851.

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4. If the regulation was adopted without changing any part of the proposed regulation, a summary of the reasons for adopting the regulation without change.

The permanent regulation was adopted by the State Environmental Commission on June 17, 1998 with proposed amendments.

5. The estimated economic effect of the adopted regulation on the business which it is to regulate and on the public. These must be stated separately, and each case must include:

- (a) Both adverse and beneficial effects: and
- (b) Both immediate and long-term effects.

The proposed changes to the water quality standards will have no immediate economic effects on businesses. Agencies which operate the Las Vegas Valley's three sewage treatment facilities and other dischargers to the Las Vegas Wash may realize a long-term economic impact. It is not possible to estimate future costs or if any costs will actually be realized. Future economic impacts will be dependent upon the extent of growth in the Las Vegas Valley. The proposed water quality standards are being met by a reasonable margin. The proposed changes to the water quality standards will have no immediate economic effect on the public. The public could possibly see long-term incremental costs associated with necessary actions by the dischargers and public entities to maintain the adopted water quality standards for the Las Vegas Wash, Las Vegas Bay and Lake Mead.

6. The estimated cost to the agency for enforcement of the adopted regulation.

There will be no increased cost to the Division of Environmental Protection for enforcement of this regulation.

7. A description of any regulations of other state or government agencies which the proposed regulation overlaps or duplicates and a statement explaining why the duplication or overlapping is necessary. If the regulation overlaps or duplicates a federal regulation, the name of the regulating federal agency.

There are no other state regulations which this regulation overlaps or duplicates.

8. If the regulation includes provisions which are more stringent than a federal regulation which regulates the same activity, a summary of such provisions.

These regulations are no more stringent than federal regulations.

9. If the regulation provides a new fee or increases an existing fee, the total annual amount the agency expects to collect and the manner in which the money will be used.

There will be no additional fees, nor will there be an increase in fees associated with this regulation.

END OF FILING STATEMENT FOR 98005 (LCB R-062-98)

**ADOPTED REGULATION OF
THE STATE ENVIRONMENTAL COMMISSION OF
THE NEVADA DEPARTMENT OF CONSERVATION
AND NATURAL RESOURCES**

LCB File No. R062-98

Explanation: Matter in **italics** is new. Matter in [] is material to be omitted.

AUTHORITY: §§ 1-8 NRS 445A.425 and 445A.520.

Section 1. NAC 445A.194 is hereby amended to read as follows:

445A.194 *1. The requirements to maintain existing higher quality become effective when the existing water quality is higher than the water quality standard for beneficial uses, as determined by the commission. Once the requirements to maintain existing higher quality become effective, the requirements are applicable thereafter. The requirements to maintain existing higher quality for the area of Lake Mead which is not covered by NAC 445A.197 are set forth in NAC 445A.195, and include, without limitation, requirements relating to temperature, pH, chlorophyll a, total dissolved solids, chloride, sulfate, total inorganic nitrogen, turbidity and color.*

2. The water quality standards *for beneficial uses* for the area of Lake Mead which is not covered by NAC 445A.197 are [prescribed] *set forth* in NAC 445A.195 [.] , *and include, without limitation, standards relating to temperature, pH, dissolved oxygen, un-ionized ammonia, total dissolved solids, chloride, sulfate, suspended solids, nitrate, nitrite, turbidity, fecal coliform and e. coli.* The beneficial uses for this area are:

- [1.] (a) Irrigation;
- [2.] (b) Watering of livestock;
- [3.] (c) Recreation involving contact with the water;
- [4.] (d) Recreation not involving contact with the water;
- [5.] (e) Industrial supply;
- [6.] (f) Municipal or domestic supply, or both;
- [7.] (g) Propagation of wildlife; and
- [8.] (h) Propagation of aquatic life, including , *without limitation*, a warmwater fishery.

Sec. 2. NAC 445A.195 is hereby amended to read as follows:
445A.195

[WATER QUALITY STANDARDS^j]

Lake Mead

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARD FOR BENEFICIAL USES	BENEFICIAL USES <i>AS DESIGNATED IN NAC 445A.194 (Most Stringent Use Listed First)</i>
Temperature [EC [†] T] Single Value ^a] <i>Single Value</i>	[0] <i>17.0 EC^a</i>	[2] <i>17.2 EC^a</i>	[Warmwater Fishery ^b] <i>Propagation of aquatic life, including, without limitation, a warmwater fishery.</i>
pH [Standard Units] Single Value	95% of samples not to exceed 8.8 <i>SU</i>	Within Range [7.0] <i>6.5 - 9.0 SU</i>	[Bathing and water contact sports ^b , wildlife propagation ^b , warmwater fishery, aquatic life, drinking water supply, industrial supply, agricultural use] <i>Propagation of aquatic life, including, without limitation, a warmwater fishery, recreation involving contact with water, propagation of wildlife, municipal or domestic supply, or both, industrial supply, irrigation and watering of livestock.</i>
Dissolved Oxygen[-mg/l] Single Value [in 90% of Samples]	--	\$5 mg/l in the epilimnion [\$5 mg/l] <i>or</i> average in water column during periods of non- stratification	[Warmwater fishery ^b , aquatic life, stock watering, bathing & contact sports, noncontact sports & esthetics, drinking water supply, wildlife propagation.] <i>Propagation of aquatic life, including, without limitation, a warmwater fishery, watering of livestock, recreation involving contact with water, recreation not involving contact with water, municipal or domestic supply, or both, and propagation of wildlife.</i>
Chlorophyll <u>a</u> - Fg/l	[c, k] <i>b</i>		[Bathing and water contact sports ^b , warmwater fishery ^b , aquatic life ^b , noncontact sports & esthetics ^b , drinking water supply ^b .] <i>Recreation involving contact with water, propagation of aquatic life, including, without limitation, a warmwater fishery, recreation not involving contact with water and municipal or domestic supply, or both.</i>
Un-ionized Ammonia - mg/l	--	[d] <i>c</i>	[Warmwater fishery ^b , aquatic life.] <i>Propagation of aquatic life, including, without limitation, a warmwater fishery.</i>
Total Dissolved Solids [- mg/l] Flow weighted Annual Average Single Value	<i>Flow Weighted Annual Average</i> #723 <i>mg/l</i> measured below Hoover [Dam ^b] <i>Dam^d</i> --	-- #1000 <i>mg/l</i>	[Drinking water supply ^b , agricultural use.] <i>Municipal or domestic supply, or both, and irrigation.</i>
Chloride [- mg/l] Single Value	e	#400 <i>mg/l^e</i>	[Drinking water supply ^b , stock watering, wildlife propagation.] <i>Municipal or domestic supply, or both, watering of livestock and propagation of wildlife.</i>
Sulfate [- mg/l] Single Value	e	#500 <i>mg/l^e</i>	[Drinking water supply ^b .] <i>Municipal or domestic water supply, or both.</i>

Petition 98005 was amended and adopted by the State Environmental Commission on June 17, 1998. The Legislative Counsel Bureau drafted Petition 98005 into regulatory language as LCB File No. R062-98. LCB File No. R062-98 became effective on August 4, 1998, when filed with the Secretary of State by the Legislative Counsel Bureau.

Suspended Solids [- mg/l] Single Value	--	#25 mg/l	[Warmwater fishery ^b , aquatic life, esthetics.] <i>Propagation of aquatic life, including, without limitation, a warmwater fishery, and recreation not involving contact with water.</i>
Nitrogen Species as N [- mg/l] Single Value [in 90% of Samples]	Total Inorganic Nitrogen 95% of samples #4.5 mg/l	Nitrate # 10 mg/l Nitrite #1 mg/l	[Drinking water supply ^b , stock watering, warmwater fishery, aquatic life, wildlife propagation. Wildlife propagation.] <i>Municipal or domestic supply, or both, watering of livestock, propagation of aquatic life, including, without limitation, a warmwater fishery, and propagation of wildlife.</i>
Turbidity [- NTU] Single Value	f	#25 NTU	[Warmwater fishery ^b , aquatic life, drinking water supply, esthetics, bathing & water contact sports.] <i>Propagation of aquatic life, including, without limitation, a warmwater fisher, municipal or domestic supply, or both, recreation involving contact with water and recreation not involving contact with water.</i>
Fecal Coliform [MF/100 ml]		#200/400 ^a MF or MPN/100ml	[Bathing & water contact sports ^b , agricultural use, noncontact sports & esthetics, drinking water supply, wildlife propagation.] <i>Recreation involving contact with water, irrigation, recreation not involving contact with water, municipal or domestic supply, or both, propagation of wildlife and watering of livestock.</i>
<i>E. Coli</i> 30-day Log Mean Single Value	-- --	#126 MF/100 ml #235 MF/100 ml	<i>Recreation involving contact with water, recreation not involving contact with water, municipal or domestic supply, or both, irrigation and watering of livestock.</i>
Color-Pt-Co Units Single Value	[i] h	--	[Esthetics ^b , drinking water supply ^b] <i>Recreation not involving contact with water and municipal or domestic supply, or both.</i>

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.

[b. The most significant beneficial uses.

c.] b. The requirements for chlorophyll a are:

(1) Not more than one monthly mean in a calendar year at Station 3 may exceed 45F g/l.

(2) The mean for chlorophyll a in summer (July 1 - [September] *September 30*) must not exceed 40 F g/l at Station 3, and the mean for 4 consecutive summer years must not exceed 30 F g/l. ["Mean" indicates the average of not less than 2 samples per month. The samples must consist of the average of the data] *The sample must be collected from [not less than 3 sites within a cross section of Station 3 that are] the center of the channel and must be representative of the top 5 meters of the [cross section.] channel.* "Station 3" means the center of the channel at which *the* depth is from 16 to 18 meters.

[d.]

(3) *The mean for chlorophyll a in the growing season (April 1-September 30) must not exceed 16 Fg/l at LM4 and 9 Fg/l at LM5. LM4 is located just outside of the Las Vegas Bay launch ramp and marina, next to buoy RW "1". LM5 is located next to buoy RW "A" with the southshore landmark of Crescent Island.*

(4) *The mean for chlorophyll a in the growing season (April 1 - September 30) must not exceed 5 Fg/l in the open water of Boulder Basin, Virgin Basin, Gregg Basin and Pierce Basin. The single value must not exceed*

10 Fg/l for more than 5% of the samples.

(5) Not less than 2 samples shall be collected between the months of March and October. During months when only one sample is available, that value will be used in place of the monthly mean.

c. See footnote [c] b to NAC 445A.197.

d. The details of this standard are set forth in the "1996 Review - Water Quality Standards for Salinity, Colorado River System" approved by the commission on March 25, 1998.

e. The combination of this constituent with other constituents comprising TDS must not result in the violation of the TDS standards for Lake Mead and the Colorado River.

f. Turbidity must not exceed that characteristic of natural conditions by more than 10 Nephelometric Units.

g. Based on a minimum of not less than five samples taken over a 30-day period, the fecal coliform bacterial level must not exceed a log mean of 200 per 100 ml. nor must more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

[h. The details of this standard are specified in the "1981 Review - Water Quality Standards for Salinity, Colorado River System," approved by the state environmental commission on June 8, 1982.

i] h. Color must not exceed that characteristic of natural conditions by more than 10 units Platinum-Cobalt Scale.

[j. The Commission] The commission recognizes that at entrances of tributaries to [this reach,] **Lake Mead** localized violations of standards may occur.

[k. The mean for chlorophyll a in the growing season (April-September) must not exceed 5 Fg/l in the open water of Boulder Basin, Virgin Basin, Gregg Basin and Pierce Basin. The single value must not exceed 10 Fg/l for more than 10 percent of the samples. "Mean" indicates the average of not less than 2 samples per month. The "Guidelines for Formulating Water Quality Standards for the Interstate Waters of the Colorado River System," adopted January 13, 1967, are incorporated as a supplement to the standards for this stream.]

Sec. 3. NAC 445A.196 is hereby amended to read as follows:

445A.196 1. The requirements to maintain existing higher quality become effective when the existing water quality is higher than the water quality standard for beneficial uses, as determined by the commission. Once the requirements to maintain existing higher quality become effective, the requirements are applicable thereafter. For the area of Lake Mead from the western boundary of the Las Vegas Bay Campground to the confluence of the Las Vegas Wash, the requirements to maintain existing higher quality are set forth in NAC 445A.197, and include, without limitation, requirements relating to temperature, pH, total inorganic nitrogen, total dissolved solids and turbidity.

2. The water quality standards for beneficial uses for Lake Mead from the western boundary of the Las Vegas [Marina] Bay Campground to the confluence of the Las Vegas Wash are [prescribed] set forth in NAC 445A.197[.], and include, without limitation, standards relating to temperature, pH, dissolved oxygen, nitrate, nitrite, un-ionized ammonia, total dissolved solids, suspended solids, turbidity and fecal coliform.

The beneficial uses for this area are:

- [1.] (a) Irrigation;**
- [2.] (b) Watering of livestock;**
- [3.] (c) Recreation not involving contact with water;**
- [4.] (d) Industrial supply;**
- [5.] (e) Propagation of wildlife; and**
- [6.] (f) Propagation of aquatic life, including , without limitation, a warmwater fishery.**

3. The goal of the requirements of subsection 1 and the standards of subsection 2 is to ensure that all of Lake Mead is fishable and swimmable by the next triannual review required by the Clean Water Act, 33

U.S.C. §§ 1251 et seq.

Sec. 4. NAC 445A.197 is hereby amended to read as follows:

445A.197 Control point at the western boundary of the Las Vegas [Marina] Bay Campground.

[WATER QUALITY STANDARDS^f]
Inner Las Vegas Bay

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARD FOR BENEFICIAL USES	BENEFICIAL USES <i>AS DESIGNATED IN NAC 445A.196 (Most Stringent Use Listed First)</i>
Temperature [EC ^f T Single Value ^a] <i>Single Value</i>	[0] ↑ T 0 EC ^a	[2] ↑ T 2 EC ^a	[Warmwater fishery ^b] <i>Propagation of aquatic life, including, without limitation, a warmwater fishery.</i>
pH [- Standard Units] Single Value	95% of samples not to exceed 8.9 <i>SU</i>	Within Range [7.0] 6.5 - 9.0 <i>SU</i>	[Wildlife propagation ^b , agricultural use, warmwater fishery, aquatic life, industrial supply.] <i>Propagation of aquatic life, including, without limitation, a warmwater fishery, propagation of wildlife, irrigation, industrial supply and watering of livestock.</i>
Dissolved Oxygen [-mg/l] Single Value [in 90% of Samples]	--	\$5 mg/l	[Warmwater fishery ^b , aquatic life, stock watering, noncontact sports & esthetics, wildlife propagation.] <i>Propagation of aquatic life, including, without limitation, a warmwater fishery, watering of livestock, recreation not involving contact with water and propagation of wildlife.</i>
Nitrogen Species as [N mg/l] Single Value [in 90% of samples Single Value]	Total Inorganic Nitrogen 95% of samples #5.3 mg/l	Nitrate #90 mg/l Nitrite [#10] #5 mg/l	[Warmwater fishery ^b , stock watering, wildlife propagation. Stock watering ^b , wildlife propagation ^b] <i>Propagation of aquatic life, including, without limitation, a warmwater fishery, watering of livestock and propagation of wildlife.</i>
Un-ionized Ammonia as N -mg/l	--	[c] b	[Warmwater fishery ^b , aquatic life ^b .] <i>Propagation of aquatic life, including, without limitation, a warmwater fishery.</i>
Total Dissolved Solids [-mg/l] Single Value	[e] c	#3000 mg/l	[Stock watering ^b , irrigation.] <i>Watering of livestock and irrigation.</i>
Suspended Solids [- mg/l] Single Value	--	#25 mg/l	[Warmwater fishery ^b , aquatic life, esthetics] <i>Propagation of aquatic life, including, without limitation, a warmwater fishery and recreation not involving contact with water.</i>
Turbidity [- NTU] Single Value	d	#25 NTU	[Warmwater fishery ^b , aquatic life, esthetics.] <i>Propagation of aquatic life, including, without limitation, a warmwater fishery and recreation not involving contact with water.</i>

Fecal Coliform [MF/100 ml] <i>MF or MPN/100 ml</i> Single Value	--	[g] <i>e</i>	[Agricultural use ^b , wildlife propagation ^b , noncontact sports & esthetics] <i>Propagation of wildlife, recreation not involving contact with water, irrigation and watering of livestock.</i>
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a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.

[b. The most significant beneficial uses.

c.] *b. The 4-day average for the concentration of un-ionized ammonia in the vertical column of water and the four-sample rolling average for each interval sampled must not exceed 0.05 mg/l more often than once every 3 years. The daily value for this average must [consist of the average of the data collected from not less than 3 sites within a cross section of Station 2 that are representative of the top 2.5 meters of the cross section, and must] account for diurnal fluctuation. Data must be collected at Station 2 from at least three locations between the surface and total depth. This [average] standard is not applicable to the area between Station 2 and the confluence of the Las Vegas Wash. The single value must not exceed 0.45 mg/l more often than once every 3 years. [When the temperature exceeds 20EC, these standards must be adjusted pursuant to methods accepted by the United States Environmental Protection Agency.] "Station 2" means the center of the channel at which the depth is 10 meters.*

c. Any increase in total dissolved solids must not result in a violation of the standards set forth in "1996 Review-Water Quality Standards for Salinity, Colorado River System" approved by the State Environmental Commission on March 25, 1998.

d. Turbidity must not exceed that characteristic of natural conditions by more than 10 Nephelometric Units.

e. [Any increase in Total Dissolved Solids must not result in a violation of the standards specified in "1981 Review--Water Quality Standards for Salinity, Colorado River System" approved by the state environmental commission on June 8, 1982.

f. The Commission recognizes that because of discharges of tributaries that localized violations of standards may occur in this reach.

g.] Any discharge from a point source into Las Vegas Wash must not exceed a log mean of 200 per 100 ml. based on a minimum of not less than five samples taken over a 30-day period nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

[The "Guidelines for Formulating Water Quality Standards for the Interstate waters of the Colorado River System," adopted January 13, 1967, are incorporated as a supplement to the standards for this stream. The guidelines may be obtained from the division of environmental protection at no cost.]

The Commission recognizes that because of discharges of tributaries, localized violations of standards may occur in the inner Las Vegas Bay.

Sec. 5. NAC 445A.198 is hereby amended to read as follows:

445A.198 1. The requirements to maintain existing higher quality become effective when the existing water quality is higher than the water quality standard for beneficial uses, as determined by the commission. Once the requirements to maintain existing higher quality become effective, the requirements are applicable thereafter. For the area of the Las Vegas Wash from Telephone Line Road to the confluence of the discharges from the Clark County wastewater treatment plant and the City of Las Vegas wastewater treatment plant discharge, which encompasses the City of Henderson wastewater treatment plant discharge, the requirements to maintain existing higher quality are set forth in NAC 445A.199, and include, without limitation, requirements

relating to temperature, pH, total inorganic nitrogen and total dissolved solids.

2. The water quality standards *for beneficial uses* for the Las Vegas Wash from [Pabco] Telephone Line Road to the confluence of the discharges from the [city and county sewage treatment plants as prescribed] Clark County wastewater treatment plant and the City of Las Vegas wastewater treatment plant discharge, which encompasses the City of Henderson wastewater treatment plant discharge, are set forth in NAC 445A.199 [.] and include, without limitation, standards relating to pH, dissolved oxygen, nitrate, nitrite, total suspended solids, total dissolved solids and fecal coliform.

The beneficial uses for this area are:

- [1.] (a) Irrigation;
- [2.] (b) Watering of livestock;
- [3.] (c) Recreation not involving contact with water;
- [4.] (d) Maintenance of a freshwater marsh;
- [5.] (e) Propagation of wildlife; and
- [6.] (f) Propagation of aquatic life, excluding fish. This *paragraph* does not preclude the establishment of a fishery.

3. The goal of the requirements of subsection 1 and standards of subsection 2 is to ensure that the beneficial uses for the Las Vegas Wash from Telephone Line Road to the confluence of the discharges from the Clark county wastewater treatment plan and the City of Las Vegas wastewater treatment plant discharge, which encompasses the City of Henderson wastewater treatment plant discharge will include, without limitation, the propagation of aquatic life, including, without limitation, fish by the next triannual review required by the Clean Water Act, 33 U.S.C. §§ 1251 et seq.

Sec. 6. NAC 445A.199 is hereby amended to read as follows:

445A.199 Control point at [Pabco] Telephone Line Road. The limits in this table apply from [Pabco] Telephone Line Road to the confluence of the discharges from the [city and county sewage] City of Las Vegas and Clark County wastewater treatment plants [.], which encompasses the City of Henderson wastewater treatment plant discharge.

Upper Las Vegas Wash

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARD FOR BENEFICIAL USES	BENEFICIAL USES AS DESIGNATED IN NAC 445A.198 (Most Stringent Use Listed First)
Temperature [EC ↑ T Single Value ^a] <i>Single Value</i>	[0] ↑ T 0 EC ^a	--	--
pH - [Standard Units] Single Value [of 90% of samples]	[Within Range 6.5 - 7.8]	Within Range 6.5 - 9.0 SU	[Wildlife propagation ^d , agricultural uses ^d] Propagation of aquatic life, excluding fish, propagation of wildlife, irrigation and watering of livestock.
Dissolved Oxygen-mg/l	--	b	[Stock watering ^d , noncontact sports, & esthetics ^d , wildlife propagation] Propagation of aquatic life, excluding fish, watering of livestock, recreation not involving contact with water and propagation of wildlife.

Nitrogen Species as [N-mg/l] N Single Value [in 90% of samples]	Total Inorganic Nitrogen 95% of samples #20 mg/l	Nitrate #100 mg/l Nitrite #10 mg/l	[Stock water ^{ingd} , wildlife propagation ^d] <i>Watering of livestock and propagation of wildlife.</i>
<i>Total Suspended Solids</i>		#135 mg/l ^c	<i>Propagation of aquatic life, excluding fish.</i>
Total [Filterable Residue] Dissolved Solids at 180EC[-mg/l] Single Value [in 90% of samples]	[#2300] 95% of samples #1900 mg/l	#3000 mg/l	[Stock water ^d , irrigation, freshwater marsh maintenance.] <i>Watering of livestock, irrigation and maintenance of a freshwater marsh.</i>
Fecal Coliform [MF/100 ml] <i>MF or MPN/100 ml</i>	--	[c] d	[Noncontact sports ^d , esthetics ^d , wildlife propagation, agricultural use] <i>Recreation not involving contact with water, propagation of wildlife, irrigation and watering of livestock.</i>

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone except during storm flow conditions.

b. **[It is known that aerobic] Aerobic** conditions are desirable for the beneficial uses of **[stock watering, noncontact sports and esthetics, and wildlife propagation. Existing conditions prevent the attainment of aerobic conditions as of September 9, 1982. Therefore] propagation of aquatic life, excluding fish, watering of livestock, recreation not involving contact with water and propagation of wildlife. So as not to prevent the development and restoration of marshes and wetlands in the Wash,** aerobic conditions are established as a goal rather than a standard and **the goal** is not intended to preclude development of a limited fishery in selected areas. Aerobic conditions is intended to mean the absence of objectionable odors that may be caused by wastewater discharges in excess of existing odors.

c. **Total suspended solids standard does not apply when flows are greater than 110 percent of average flow as measured at the nearest gage. Average flow is defined as the 12-month rolling average of the average monthly flow.**

d. Any discharge from a point source into Las Vegas Wash must not exceed a log mean of 200 per 100 ml. based on a minimum of not less than five samples taken over a 30-day period nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

[d. The most significant beneficial uses.]

Sec. 7. NAC 445A.200 is hereby amended to read as follows:

445A.200 **1. The requirements to maintain existing higher quality become effective when the existing water quality is higher than the water quality standard for beneficial uses, as determined by the commission. Once the requirements to maintain existing higher quality become effective, the requirements are applicable thereafter. For the area from the confluence of the Las Vegas Wash with Lake Mead to Telephone Line Road, the requirements to maintain existing higher quality are set forth in NAC 445A.201, and include, without limitation, requirements relating to temperature, pH, total inorganic nitrogen and total dissolved solids.**

2. The water quality standards for beneficial uses for the Las Vegas Wash from [Pabco Road to] the confluence of the Las Vegas Wash with Lake Mead to Telephone Line Road are [prescribed] set forth in NAC 445A.201[.], and include, without limitation, standards relating to pH, dissolved oxygen, nitrate, nitrite, total suspended solids, total dissolved solids and fecal coliform.

The beneficial uses for this area are:

- [1.] (a) Irrigation;
- [2.] (b) Watering of livestock;
- [3.] (c) Recreation not involving contact with the water;
- [4.] (d) Maintenance of a freshwater marsh;
- [5.] (e) Propagation of wildlife; and
- [6.] (f) Propagation of aquatic life, excluding fish. This *paragraph* does not preclude the establishment of a fishery.

3. The goal of the requirements of subsection 1 and standards of subsection 2 is to ensure that the beneficial uses for the Las Vegas Wash from the confluence of the Las Vegas Wash with Lake Mead to Telephone Line Road will include, without limitation, the propagation of aquatic life, including without limitation, fish by the next triannual review required by the Clean Water Act, 33 U.S.C. §§ 1251 et seq.

Sec. 8. NAC 445A.201 is hereby amended to read as follows:

445A.201 The limits in this table apply from **[Pabco Road to]** the confluence of the Las Vegas Wash with Lake Mead ***to Telephone Line Road.***

[WATER QUALITY STANDARDS]

Lower Las Vegas Wash

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES <i>AS DESIGNATED IN NAC 445A.200 (Most Stringent Use Listed First)</i>
Temperature [EC] T Single Value ^a <i>Single Value</i>	[0] $T \geq T_{0EC}^a$	--	--
pH [- Standard Unit] Single Value [of 90% of samples]	[Within Range 7.2 - 8.7]	Within Range [7.0] 6.5 - 9.0 SU	[Wildlife propagation ^d , agricultural uses ^d] <i>Propagation of aquatic life, excluding fish, propagation of wildlife, irrigation and watering of livestock.</i>
Dissolved Oxygen-mg/l		b	[Stock watering ^d , noncontact sports, & esthetics ^d , wildlife propagation ^d] <i>Propagation of aquatic life, excluding fish, watering of livestock, recreation not involving contact with water and propagation of wildlife.</i>
Nitrogen Species as[N-mg/l] N Single Value [in 90% of samples]	Total Inorganic Nitrogen 95% of samples #17 mg/l	Nitrate Nitrite #100 mg/l #10 mg/l	[Stock watering ^d , wildlife propagation ^d] <i>Watering of livestock and propagation of wildlife.</i>
<i>Total Suspended Solids</i>		#135 mg/l ^c	<i>Propagation of aquatic life, excluding fish.</i>
Total [Filterable Residue] Dissolved Solids at 180EC[-mg/l] Single Value [in 90% of samples]	#[2600] 95% of samples #2400 mg/l	#3000 mg/l	[Stock water ^d , irrigation, freshwater marsh maintenance.] <i>Watering of livestock, and maintenance of a freshwater marsh.</i>
Fecal Coliform [MF/100 ml] MF or MPN/100 ml	--	[c] d	[Noncontact sports & esthetics ^d , wildlife propagation ^d , agricultural use] <i>Recreation not involving contact with water, propagation of wildlife, irrigation and watering of livestock.</i>

a. Maximum allowable increase in temperature above receiving water temperature at the boundary of an approved mixing zone.

b. [It is known that aerobic] *Aerobic* conditions are desirable for the beneficial uses of [stock watering, noncontact sports and esthetics, and wildlife propagation. Existing conditions prevent the attainment of aerobic conditions as of September 9, 1982. Therefore] *propagation of aquatic life, excluding fish, watering of livestock, recreation not involving contact with the water and the propagation of wildlife. So as not to prevent the development and restoration of marshes and wetlands in the Wash*, aerobic conditions are established as a goal rather than a standard and *the goal* is not intended to preclude development of a limited fishery in selected areas. Aerobic conditions is intended to mean the absence of objectionable odors that may be caused by wastewater discharges in excess of existing odors.

c. *This standard does not apply when flows are greater than 110 percent of average flow as measured at the nearest gage. As used in this paragraph, "average flow" means the 12-month rolling average of the average monthly flow.*

d. Any discharge from a point source into Las Vegas Wash must not exceed a log mean of 200 per 100 ml. based on a minimum of not less than five samples taken over a 30-day period nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

[d. The most significant beneficial uses.]

END OF LCB FILE NO. R062-98